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10/599,067	09/03/2008	Hideo Kawawaki	045616/316737	3725

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EXAMINER	
ERB, NATHAN	

ART UNIT	PAPER NUMBER
3628	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/599,067	KAWAWAKI, HIDEO	
	Examiner	Art Unit	
	NATHAN ERB	3628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☒ Claim(s) *2-4* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 September 2008* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20060919*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Request for Information

1. Applicant and the assignee of this application are required under 37 CFR 1.105 to provide the following information that the examiner has determined is reasonably necessary to the examination of this application.

2. 37 CFR 1.105 states:

"§ 1.105 Requirements for information.
(a)
(1) In the course of examining or treating a matter in a pending or abandoned application filed under 35 U.S.C. 111 or 371 (including a reissue application), in a patent, or in a reexamination proceeding, the examiner or other Office employee may require the submission, from individuals identified under § 1.56(c), or any assignee, of such information as may be reasonably necessary to properly examine or treat the matter, for example:
(i) Commercial databases : The existence of any particularly relevant commercial database known to any of the inventors that could be searched for a particular aspect of the invention.
(ii) Search : Whether a search of the prior art was made, and if so, what was searched.
(iii) Related information : A copy of any non-patent literature, published application, or patent (U.S. or foreign), by any of the inventors, that relates to the claimed invention.
(iv) Information used to draft application : A copy of any non-patent literature, published application, or patent (U.S. or foreign) that was used to draft the application.
(v) Information used in invention process : A copy of any non-patent literature, published application, or patent (U.S. or foreign) that was used in the invention process, such as by designing around or providing a solution to accomplish an invention result.
(vi) Improvements : Where the claimed invention is an improvement, identification of what is being improved.
(vii) In Use : Identification of any use of the claimed invention known to any of the inventors at the time the application was filed notwithstanding the date of the use.
(viii) Technical information known to applicant . Technical information known to applicant concerning the related art, the disclosure, the claimed subject matter, other factual information pertinent to patentability, or concerning the accuracy of the examiner's stated interpretation of such items.
(2) Where an assignee has asserted its right to prosecute pursuant to § 3.71(a) of this chapter, matters such as paragraphs (a)(1)(i), (iii), and (vii) of this section may also be applied to such assignee.
(3) Requirements for factual information known to applicant may be presented in any appropriate manner, for example:
(i) A requirement for factual information;
(ii) Interrogatories in the form of specific questions seeking applicant's factual knowledge; or
(iii) Stipulations as to facts with which the applicant may agree or disagree.

> (4) Any reply to a requirement for information pursuant to this section that states either that the information required to be submitted is unknown to or is not readily available to the party or parties from which it was requested may be accepted as a complete reply.
>
> (b) The requirement for information of paragraph (a)(1) of this section may be included in an Office action, or sent separately.
>
> (c) A reply, or a failure to reply, to a requirement for information under this section will be governed by §§ 1.135 and 1.136."

3. In addressing requirements for information, MPEP 704.11 states:

> "INFORMATION REASONABLY NECESSARY FOR FINDING PRIOR ART
>
> The criteria stated in 37 CFR 1.105 for making a requirement for information is that the information be reasonably necessary to the examination or treatment of a matter in an application. The information required would typically be that necessary for finding prior art or for resolving an issue arising from the results of the search for art or from analysis of the application file. A requirement for information necessary for finding prior art is not a substitute for the examiner performing a search of the relevant prior art; the examiner must make a search of the art according to MPEP § 704.01 and §§ 904 - 904.03.
>
> The criteria of reasonable necessity is generally met, e.g., where:
>
> (A) the examiner's search and preliminary analysis demonstrates that the claimed subject matter cannot be adequately searched by class or keyword among patents and typical sources of non-patent literature, or
>
> (B) either the application file or the lack of relevant prior art found in the examiner's search justifies asking the applicant if he or she has information that would be relevant to the patentability determination.
>
> The first instance generally occurs where the invention as a whole is in a new area of technology which has no patent classification or has a class with few pieces of art that diverge substantially from the nature of the claimed subject matter. In this situation, the applicant is likely to be among the most knowledgeable in the art, as evidenced by the scarcity of art, and requiring the applicant's information of areas of search is justified by the need for the applicant's expertise.
>
> The second instance generally occurs where the application file, or other related applications or publications authored by the applicant, suggests the applicant likely has access to information necessary to a more complete understanding of the invention and its context. In this situation, the record suggests that the details of such information may be relevant to the issue of patentability, and thus shows the need for information in addition to that already submitted by the applicant."

4. Examiner's search and preliminary analysis have demonstrated that certain claimed subject matter cannot be adequately searched by class or keyword among patents and typical sources of non-patent literature. Therefore, Examiner may appropriately make this requirement for information because the information is reasonably necessary to the examination or treatment of the respective matters in this application. More specifically, Applicant's claims contain one or more mathematical equations and/or algorithms. Mathematical equations and algorithms are difficult to

search due to limitations inherent in the various search engines with respect to searching mathematical equations and algorithms, as well as the tendency to be able to express mathematical equations and algorithms in a variety of different formats with a variety of different symbols for variables and constants. Therefore, this requirement for information is appropriate.

5. In response to this requirement, please provide answers to each of the following interrogatories eliciting factual information. While the specification may address some of these questions, Examiner would like each of these questions answered directly, in case the specification does not completely address each of these issues:

1. Regarding the mathematical equation of claim 2:

Current price = initial cost ÷ (total of desired quantities x $\alpha + \beta$) + fixed cost

where $1 \geq (\alpha + \beta)$,

was this mathematical equation derived independently by Applicant, or taken directly from another source?

2. If the above mathematical equation of claim 2 was taken directly from another source, what was that source?

3. If the above mathematical equation of claim 2 was derived independently by Applicant, what other mathematical equations and/or algorithms were used by Applicant to derive the mathematical equation of claim 2?

4. If other mathematical equations and/or algorithms were used by Applicant to derive the mathematical equation of claim 2, what were the sources of those equations and/or algorithms?

6. In response to this requirement, please provide the title, citation and copy of each publication that any of the applicants relied upon to develop the disclosed subject matter that describes the applicant's invention, with respect to developing the equation of claim 2 above. For each publication, please provide a concise explanation of the reliance placed on that publication in the development of the disclosed subject matter. Please be sure to include all publications referenced in the answers to the above interrogatories.

7. In responding to those requirements that require copies of documents, where the document is a bound text or a single article over 50 pages, the requirement may be met by providing copies of those pages that provide the particular subject matter indicated in the requirement, or where such subject matter is not indicated, the subject matter found in applicant's disclosure.

8. The fee and certification requirements of 37 CFR 1.97 are waived for those documents submitted in reply to this requirement. This waiver extends only to those documents within the scope of this requirement under 37 CFR 1.105 that are included in the applicant's first complete communication responding to this requirement. Any supplemental replies subsequent to the first communication responding to this requirement and any information disclosures beyond the scope of this requirement under 37 CFR 1.105 are subject to the fee and certification requirements of 37 CFR 1.97.

9. The applicant is reminded that the reply to this requirement must be made with candor and good faith under 37 CFR 1.56. Where the applicant does not have or

cannot readily obtain an item of required information, a statement that the item is unknown or cannot be readily obtained may be accepted as a complete reply to the requirement for that item.

10. This requirement is an attachment of the enclosed Office action. A complete reply to the enclosed Office action must include a complete reply to this requirement. The time period for reply to this requirement coincides with the time period for reply to the enclosed Office action.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN ERB whose telephone number is (571)272-7606. The examiner can normally be reached on M-F 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on (571) 272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

NATHAN ERB
Examiner
Art Unit 3628

nhe

/NATHAN ERB/
Examiner, Art Unit 3628

/JOHN W HAYES/
Supervisory Patent Examiner, Art Unit 3628

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it exceeds 150 words in length. Correction is required. See MPEP § 608.01(b).

Claim Objections

3. Claims 2-4 are objected to because of the following informalities: The first five words of each of these claims refers to the previously introduced "article joint purchase system" of claim 1. Therefore, the first word of each of these claims should be --The-- instead of "An." Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As per Claim 1, the claim contains an action that is to be performed if a particular condition is present. However, the claim does not also state what action occurs if that particular condition is not present. This renders the claim to be indefinite. The conditional statement being referred to here is: "...if the first value is equal to or larger than the second value."

As per Claim 2, the claim does not state what the symbols α and β represent. Therefore, it is unclear what is being claimed, and the claim is indefinite.

As per Claims 2-4, these claims depend from indefinite claim 1 and do not remedy the indefiniteness issue of that claim. Therefore, these claims are indefinite for that reason.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Horn, U.S. Patent No. 6,631,356 B1, in view of Dietrich, U.S. Patent Application Publication No. US 2003/0018560 A1, in further view of Carter, S., Macdonald, N.J., and Cheng, D.C.B., Basic Finance for Marketers, Food and Agriculture Organization of the United Nations, Rome, 1997, in further view of National Association of Cost Accountants, "The Analysis of Cost-Volume-Profit Relationships," NACA Bulletin, December 1949, pp. 523 (hereinafter referred to as National), in further view of Ratnam, P.V., "India: Cost and Management Accounting," Businessline, Chennai, August 13, 2001, p. 1, in further view

of Taylor, Chris, "T-Shirts: Where the Money Goes," Canadian Musician,

January/February 2005, p. 62.

As per Claim 1, Van Horn discloses:

- an article joint purchase system using a network, for managing, via the network, purchase application information on an article which is inputted by each of a plurality of applicants for purchase through a terminal device, the article being produced, transported, or purchased on a lot basis on the network (Figure 4; Figure 6; Figure 9; column 8, line 31, through column 9, line 22; column 10, lines 30-46; column 11, lines 8-17);

- an accepting means for accepting the purchase application information inputted through the terminal device and reporting an application for purchase, an entry price (a price at which or under which the purchase is desired) of a particular article, and a desired quantity (Figure 4; column 8, line 31, through column 9, line 22; column 10, lines 30-46; column 11, lines 45-62; columns 13 and 14, bottom half of page);

- an order data table for storing the application for purchase, the entry price, and the desired quantity, in association with one another (columns 13 and 14, bottom half of page);

- a condition table for registering a maximum sales quantity which corresponds to the quantity of the article in one lot (column 14, lines 30-34; columns 13 and 14, upper table);

- a quantity and price determining means, operating each time the purchase application information is accepted by the accepting means, which determines if a transaction occurs and which transmits the entry price as a sales-determined price to the terminal device (Figure 4; column 3, line 59, through column 4, line 2; column 8, line 31, through column 9, line 22; column 9, lines 36-44; column 10, lines 30-46; column 11, lines 45-62; column 12, lines 19-36);

- wherein, if a transaction occurs, the quantity of goods is sold for which entry prices were submitted that were greater than or equal to the entry price that became the final price (Figure 6; Figure 9; column 3, line 59, through column 4, line 2; column 8, line 31, through column 9, line 22; column 9, lines 36-44; column 12, lines 19-36).

Van Horn fails to disclose determining whether or not a transaction occurs based on whether or not a minimum required revenue will be equaled or exceeded. Dietrich discloses determining whether or not a transaction occurs based on whether or not a minimum required revenue will be equaled or exceeded (paragraphs [0021]-[0024]; paragraph [0029]). It would have been obvious to one of ordinary skill in the art to modify the invention of Van Horn such that it determines whether or not a transaction occurs based on whether or not a minimum required revenue will be equaled or exceeded, as disclosed by Dietrich, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Van Horn fails to disclose wherein minimum required revenue equals profit plus costs; a cost obtained by adding a profit to a non-variable cost; calculating a minimum required revenue by adding a total variable cost to a cost obtained by adding a profit to a non-variable cost. Carter discloses wherein minimum required revenue equals profit plus costs (p. 66, section A; p. 67, section B); a cost obtained by adding a profit to a non-variable cost (p. 66, section A; p. 67, section B); calculating a minimum required revenue by adding a total variable cost to a cost obtained by adding a profit to a non-variable cost (p. 66, section A; p. 67, section B). It would have been obvious to one of ordinary skill in the art to modify the invention of Van Horn such that minimum required revenue equals profit plus costs; the invention includes a cost obtained by adding a profit to a non-variable cost; and the invention calculates a minimum required revenue by adding a total variable cost to a cost obtained by adding a profit to a non-variable cost, as disclosed by Carter, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Van Horn fails to disclose calculating revenue by multiplying price by quantity being sold; calculating total variable cost by multiplying the fixed cost by quantity being sold. National discloses

calculating revenue by multiplying price by quantity being sold (section A; section B; section C; section D); calculating total variable cost by multiplying the fixed cost by quantity being sold (section B; section C; section D; section E; section F; section G; note that what Applicant's application refers to as a "fixed cost" is known in the art as a "variable cost"). It would have been obvious to one of ordinary skill in the art to modify the invention of Van Horn such that it calculates revenue by multiplying price by quantity being sold; and calculates total variable cost by multiplying the fixed cost by quantity being sold, as disclosed by National, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Van Horn fails to disclose a fixed cost obtained by adding a material cost per one piece of the article to a production cost per one piece of the article. Ratnam discloses a fixed cost obtained by adding a material cost per one piece of the article to a production cost per one piece of the article (section A; note that what Applicant's application refers to as a "fixed cost" is known in the art as a "variable cost"). It would have been obvious to one of ordinary skill in the art to modify the invention of Van Horn such that it includes a fixed cost obtained by adding a material cost per one piece of the article to a production cost per one piece of the article, as disclosed by Ratnam, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Van Horn fails to disclose wherein components of a non-variable cost are initial production costs that include a design cost and an artwork production cost. Taylor discloses wherein components of a non-variable cost are initial production costs that include a design cost and an artwork production cost (Art Design section; Film and Screen Exposure Costs section). It would have been obvious to one of ordinary skill in the art to modify the invention of Van Horn such that components of a non-variable cost are initial production costs that include a design cost and an artwork production cost, as disclosed by Taylor, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

8. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Horn in view of Dietrich in further view of Carter in further view of National in further view of Ratnam in further view of Taylor in further view of Mesaros, U.S. Patent No. 7,689,463 B1.

As per Claim 3, Van Horn further discloses wherein the condition table further registers a limit sales price that is a lowest price per one piece of the article in one lot (Figure 6; Figure 9; column 14, lines 30-34; columns 13 and 14, bottom half of page; columns 15 and 16, upper table).

Van Horn fails to disclose a joint purchase start price obtained by calculating a price for when quantity to be sold equals one. Mesaros discloses a joint purchase start price obtained by calculating a price for when quantity to be sold equals one (Figure 13; column 2, lines 11-19; column 11, line 31, through column 12, line 9; when this limitation is combined with the limitations of claim 1, a price being defined for a single, first item equals adding the initial cost to the fixed cost). It would have been obvious to one of ordinary skill in the art to modify the invention of Van Horn such that it includes a joint purchase start price obtained by calculating a price for when quantity to be sold equals one, as disclosed by Mesaros, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

9. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Van Horn in view of Dietrich in further view of Carter in further view of National in further view of Ratnam in further view of Taylor in further view of Mesaros in further view of Marshall, P. Douglas, "Pricing Products & Services: An Accounting Perspective," The National Public Accountant, May 2000, pp. 40-44.

As per Claim 4, Van Horn further discloses wherein the lowest price on the price curve is for the maximum number of items to be sold (Figure 6; Figure 9).

Van Horn fails to disclose wherein the limit sales price is obtained by adding the fixed cost to a value obtained by dividing the initial cost by the sales quantity. Marshall discloses wherein the limit sales price is obtained by adding the fixed cost to a value obtained by dividing the initial cost by the sales quantity (p. 41, column 1, Minimum Pricing Model section). It would have been obvious to one of ordinary skill in the art to modify the invention of Van Horn such that the limit sales price is obtained by adding the fixed cost to a value obtained by dividing the initial cost by the sales quantity, as disclosed by Marshall, since the claimed invention is merely a combination of old elements, and in the combination each element merely would have performed the same function as it did separately, and one of ordinary skill in the art would have recognized that the results of the combination were predictable.

Conclusion

10. This Office action has an attached requirement for information under 37 CFR 1.105. A complete reply to this Office action must include a complete reply to the attached requirement for information. The time period for reply to the attached requirement coincides with the time period for reply to this Office action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHAN ERB whose telephone number is (571)272-7606. The examiner can normally be reached on M-F 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Hayes can be reached on (571) 272-6708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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NATHAN ERB
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/JOHN W HAYES/
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